

# RESEARCH PROPOSALS

***March 2004***

California Environmental Protection Agency



Air Resources Board

# Effect of GSTM1 Genotype on Ozone-Induced Allergic Airway Inflammation

University of California, San Francisco

Dr. Colin Solomon

\$497,990 (42 months)

- **Objective:** Determine whether ozone exposure enhances allergic responses in asthmatics to allergen and whether the GSTM1 genotype is a predictor of susceptibility to health effects.
- **Expected Results:** Identification of biological basis for differential responses among allergic asthmatics exposed to ozone and allergen.

# **Determination of Reactive Oxygen Species Activity in PM and Enhanced Exposure Assessment for the NIH/NIEHS Study Entitled: Ultrafine PM and Cardiorespiratory Health**

University of California, Irvine

Dr. Ralph Delfino

\$676,814 (36 Months) Co-funded by SCAQMD

- **Objective:** Determine health impacts of ultrafine particulate matter on elderly people in the South Coast Air Basin.
- **Expected Results:** Definition of how air pollutants are related to cardiovascular health outcomes among a sensitive population.

# Development of a Micro Air Particulate Analyzer for Ubiquitous Deployment in Air Quality Monitoring and Epidemiological Studies

University of California, Davis

Dr. Debbie Niemeier

\$225,310 (24 Months)

Co-funded by CEC

- **Objective:** Build an inexpensive, portable instrument to measure the size distribution of PM.
- **Expected Results:** A device that can enable PM size characterization for community studies.

# Evaluation of Mechanisms of Exhaust Intrusion into School Buses and Feasible Mitigation Measures

University of California, Riverside

Dennis Fitz

\$299,999 (24 Months)

- **Objective:** Investigate school bus self-pollution and explore mitigation measures to reduce children's exposure to exhaust.
- **Expected Results:** An understanding of how to buses typically allow exhaust intrusion and measures to reduce it.

# Evaluation of the Heavy-Duty Diesel Engine Not-to-Exceed (NTE) Regulation

University of California, Riverside

Dr. J. Wayne Miller

\$400,000 (20 Months)

Small co-funding by U.S. EPA

- **Objective:** Evaluate on-board emission measurement systems used to implement the NTE regulation
- **Expected Results:** Data to ensure heavy-duty diesel engines meet the NTE standards.

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